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(54) Title: **WAVEGUIDE STRUCTURE FOR UPCONVERSION OF IR WAVELENGTH LASER RADIATION**

(57) Abstract: The invention relates to a waveguide structure for upconversion of IR wavelength laser radiation and is characterized in comprising a) at least one base substrate layer made essentially out of a moisture-stable mechanically- and/or temperature-stable material b) at least one active layer made essentially out of a halide glass, preferably a fluoride glass located on the base substrate layer whereby the material of the at least one base substrate layer has a different composition from the material of the at least one active layer.

WO 2005/088784 A1